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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: HOLTZAPPLE et al.
Serial No.: 10/698,199
Filing Date: October 31, 2003
Group Art Unit: 1797
Confirmation No.: 9996
Examiner: William H. Beisner
Title: **METHODS AND SYSTEMS FOR PRETREATMENT
AND PROCESSING OF BIOMASS**

MAIL STOP AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
Dear Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

The following Pre-Appeal Brief Request for Review (“Request”) is being filed in accordance with the provisions set forth in the Official Gazette Notice of July 12, 2005 (“OG Notice”). Pursuant to the OG Notice, this Request is being filed concurrently with a Notice of Appeal. Applicants respectfully request reconsideration of the below identified claims in the Application.

REMARKS

In the prosecution of the present Application, the PTO’s rejections and assertions contain clear errors of law. Most notable of the legal errors present in the examination of the Application is a failure of the Office Actions to establish a *prima facie* rejection of the claims as detailed below.

Section 103 Rejections

Claims 1-7, and 9 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over three references: U.S. Patent No. 4,758,344 to Wildenauer (“Wildenauer”);

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U.S. Patent No. 4,668,388 to Dibble, et al (“*Dibble*”) or U.S. Patent No. 4,952,230 to Norlund (“*Norlund*”); and U.S. Patent No. 4,230,676 to Taylor, et al. (“*Taylor*”). Applicants submit that the PTO failed to establish a *prima facie* case of obviousness because the proposed combinations would render the references “unsatisfactory for its intended purpose.”¹ Clearly, one would not be motivated to combine references in a manner that would make the references unsatisfactory for their intended purpose. Accordingly, there is no suggestion or motivation to make the proposed combination.

First Improper Combination: Taylor and Wildenauer

The PTO acknowledged that *Wildenauer* does not disclose Claim 1’s feature of “a lime input device operable to deliver lime to the biomass for pretreating the biomass.” Accordingly, the PTO attempted to borrow a conduit from *Taylor* for an alleged disclosure of this feature. However, if this conduit is borrowed from *Taylor* and placed in *Wildenauer*, *Wildenauer* will be unable to remove liquid flow-off 11 from trough 21. Specifically, the *Taylor* conduit which the PTO wants borrow serves a two-fold purpose: (1) as an injector to inject fluid to the pile, and (2) as an evacuator to withdraw fluid. With reference to FIGURE 2, *Taylor*’s conduit moves vertically with the pile. The vertical offset of the *Taylor*’s conduit would render inoperable *Wildenauer*’s ability to remove liquid flow-off 11. That is, for example, with *Taylor*’s conduit in a vertical position, liquid flow off from the pile could not be captured as *Wildenauer*’s system is designed to do. Accordingly, *Taylor*’s conduit could not be placed into *Wildenauer*.

In response to an argument similar to the above, the PTO in the Final Office Action indicated the following:

Taylor et al. was relied upon to evidence that it is known in the art to supply a pile of organic material that is subjected to microbiological degradation with a lime slurry to control the pH of the biodegradation process. The reference of Wildenauer already includes a distribution system (10) for injecting fluids into the biomass material. One of ordinary skill in the art would recognize that the lime slurry can be injected into the biomass using the existing injection system (10) . . .

¹ See MPEP 2143.01 (“If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” (citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)).

(Final Office Action at 14-15). In response, Applicants previously pointed out why such an argument is incorrect. First, the PTO is impermissibly borrowing only a portion of *Taylor's* disclosure (namely, only the lime slurry feature but not the means for injecting the lime slurry or extracting the lime slurry). To this end, Applicants reminded the PTO that “[i]t is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.” *In re Hedges*, 783 F.2d 1038, 1041, 228 USPQ 685, 687 (Fed. Cir. 1986) (emphasis added). Rather, “the prior art as a whole must be considered. The teachings are to be viewed as they would have been viewed by one of ordinary skill.” *Id.* (emphasis added).² Viewing *Taylor* as a whole, one of ordinary skill in the art would not pick and choose functionality of features.

Second, *Taylor* and *Wildenauer* still cannot be combined in the manner suggested by the PTO. The *Wildenauer* existing injection system (10) is comprised of “[w]atering pipes with a plurality of spray openings . . . provided for supplying a leaching liquid into the tower.” (Col. 3, ll. 62-64). *Wildenauer* further describes that “[t]he leaching liquid is primarily water supplied from an overflow 15 in a solid bed reactor.” (Col. 3, ll. 64-66). Without applicant’s disclosure in hand, one of ordinary would not be motivated to modify the *Wildenauer* existing injection system (10) to inject both leaching liquid from the solid bed reactor and lime from a second source because any such modification would also destroy another functionality of *Wildenauer*, which requires the existing injection system 10 to operate in a “substantially closed circuit.” (Col. 2, ll. 63-64).

In its advisory action, the PTO did not respond to either of the above two arguments. For the reasons indicated above, Applicants submit that Independent Claim 1 and its dependents should be allowed. Independent Claim 12 and its dependents should be allowed for analogous reasons.

Second Improper Combination

The PTO acknowledged that *Wildenauer* does not disclose Claim 1’s feature of “a drain pipe disposed within the gravel layer.” Accordingly, the PTO attempted to borrow

² Additionally, to this end, it is unclear how the use of *Taylor's* conduit with this two-fold purpose could be combined with any reference in which there is alleged disclosure of the claimed feature of a “drain pipe disposed with the gravel layer.” That is, *Taylor's* drain pipe, the conduit, is always vertically offset with the pile and could not be disposed within a gravel layer.

either *Dibble*'s pipe or *Norlund*'s pipe for placement in *Wildenauer*. However, this proposed combination would render inoperable *Wildenauer*'s ability to wash water soluble organic substances and soluble heavy metal salts out of the refuse in the tower 1 and collect liquid flow-off after the liquid has served its purpose. *See, e.g., Wildenauer*, Col. 4, ll. 1-5. With regards to *Norlund*, a main pipe 1 is disclosed which is connected to an air supply. This main pipe serves a purpose of blowing air into a pile as opposed to collecting liquid. Thus, if *Norlund*'s main pipe were used in *Wildenauer*, *Wildenauer* could no longer collect liquid flow-off.

With regards to *Dibble*, a water removal means is described for use in a sludge dewatering process. Specifically, *Dibble* describes a vacuum that can be applied to speed up dewatering of a sludge. In other words, *Dibble removes* water of a sludge (*Dibble* does not want the water in the pile) whereas *Wildenauer applies* liquid to an organic waste for an appropriate reaction (*Wildenauer* wants fluid in the pile) and collects the applied fluid after it has served its useful purpose. *Dibble*'s forceful water removal process (as opposed to a collection process of *Wildenauer*) would inhibit *Wildenauer*'s purpose of washing water soluble organic substances and soluble heavy metal salts out of the refuse in the tower.

In response to arguments similar to the above concerning *Dibble* or *Norlund*'s pipes, the PTO simply provided the following:

Taylor et al. was relied upon to evidence that it is known in the art to supply a pile of organic material that is subjected to microbiological degradation with a lime slurry to control the pH of the biodegradation process. The reference of *Wildenauer* already includes a distribution system (10) for injecting fluids into the biomass material. One of ordinary skill in the art would recognize that the lime slurry can be injected into the biomass using the existing injection system (10) of *Wildenauer* rather than attempting to bodily incorporate the conduits of Taylor et al. into the system of *Wildenauer* as argued by Applicants. The same holds true when combining the teachings of either the references of Dibble or Norlund with the reference of Wildenauer and or the additional tertiary references as set forth in the prior art rejections of record.

(Final Office Action at 15, Emphasis Added). As stated before, Applicants do not know how the PTO response is responsive to Applicants' argument. The PTO is attempting to use a reference in a manner that not only destroys a purpose of another reference, but also works contrary to the reference's actual teachings.

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In its advisory action, the PTO did not respond to the above arguments. For at least these additional reasons, Applicants submit that Independent Claim 1 and its dependents should be allowed. Independent Claim 12 and its dependents should be allowed for analogous reasons.

CONCLUSION

Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this Application in any manner, the Examiner is invited to contact Ryan S. Loveless, Attorney for Applicant, at the Examiner's convenience at (214) 953-6913.

Although no fees are believed due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to **Deposit Account No. 02-0384 of Baker Botts L.L.P.**

Respectfully submitted,

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